

Workshop Paper: Building on the Fly by Design

Issue:

1. The United States faces an urgent need to develop agile, scalable, and innovative healthcare response mechanisms to manage catastrophic events, particularly in worst-case scenarios such as large-scale combat operations with a near-peer adversary.
2. The current emergency response framework is constrained by existing operational models and lacks the ability to rapidly scale resources and infrastructure to meet extreme mass casualty events.
3. Building on the Fly by Design is a federal interagency initiative led by the National Center for Disaster Medicine and Public Health (NCDMPH) and supported by the University of Nebraska Medical Center (UNMC) aimed at preparing our nation for catastrophic events.
4. Building on the Fly by Design aims to develop a **more effective and efficient process** for imagining requirements, determining potential solutions, and developing operationally feasible plans for rapidly building capacity to address needs during worst-case scenario events when needs far exceed what can be sustained under steady state operations.

Purpose:

1. The March Planning Meeting in Omaha will convene key government leaders to **define the parameters of a structured process for scenario-based planning**, validate methodologies for rapid capacity expansion, and establish the technical requirements for a broader multi-sector engagement in Meeting 2.
2. Convened federal interagency partners will **discuss a process that moves beyond incremental adaptations** to develop bold, transformative solutions that dynamically adjust to extreme healthcare crises.

Problem:

1. Current healthcare and emergency response systems operate within the constraints of pre-existing infrastructure and traditional response protocols. These **models do not sufficiently address large-scale, high-intensity emergencies** that overwhelm the nation's capacity. Existing solutions rely heavily on steady-state operations and do not leverage non-traditional resources. Without a proactive, structured approach, emergency response efforts will continue to be reactive and ad hoc, leading to inefficiencies and gaps in care delivery.
2. Decision-making during crises operates outside typical, structured methodologies. Senior leaders must make critical choices with limited information, constrained resources, and evolving threats. **There is no unified framework to evaluate and anticipate these decision-making processes**, yet high-pressure environments demand rapid and effective decisions by senior leaders holding unique authorities. Understanding how, when, and



why these decisions are made is essential for developing a systematic approach that ensures coordinated, effective responses.

Goals/Outcomes of the Workshop:

1. Develop the foundational technique for executing the Building on the Fly by Design process, ensuring it is adaptable, operationally feasible, and supports innovative problem-solving in extreme crises.
2. Define priority elements for a worst-case scenario that will serve as the foundation for testing and evaluating the Building on the Fly by Design process.
3. Identify the process elements leading up to decision points and define specific injects for Meeting 2 that will assess decision-making effectiveness under crisis conditions.
4. Define the core technical and operational requirements necessary to support Meeting 2's expanded discussions and achieve the intended outcomes of the process.
5. Identify critical deficiencies in the current response framework to test during Meeting 2.
6. Outline a strategy to engage a broader stakeholder group, including industry, academia, and non-governmental organizations, for Meeting 2 success.

Discussion Questions:

Participants should be prepared to contribute insights and experiences related to:

1. What are the key elements of a "worst-case scenario" to develop the requirements to test in Meeting 2?
2. What critical capabilities—civilian, military, private sector—should be considered to meet infrastructure requirements beyond the status quo?
3. How should civilian, military, and private sector capabilities be integrated to facilitate coordination, and what mechanisms must be put in place to enable effective collaboration?
4. How do senior leaders make critical decisions in high-pressure environments, and how can we systematically understand and improve those processes?
5. What are the biggest challenges in repurposing and accessing untapped resources for extreme surge events (e.g., spaces, personnel, supplies, and partnerships), and how can they be addressed?
6. What other considerations are needed to inform the agenda and structure of Meeting 2 to facilitate operational planning and accomplish programmatic goals?

Conclusion:

This meeting represents a unique opportunity to **redefine how the nation prepares for catastrophic healthcare challenges**. Through collective expertise and cross-sector collaboration, we can lay the groundwork for a strategic, proactive, and scalable healthcare response model that meets the demands of future crises.